

# Course : Introduction to AI and Machine Learning on Google Cloud

Official course, preparation for Google Cloud certification exams

*Practical course - 1d - 7h00 - Ref. GML*

*Price : 850 € E.T.*

With this training course, you'll learn to master the key concepts of artificial intelligence and Machine Learning in a business context, using Google Cloud Services. You'll discover how to identify automation and data enhancement opportunities, choose the right tools (Vertex AI, AutoML, BigQuery ML) and integrate Machine Learning models into your processes.

## Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Recognize the AI data conversion technologies and tools provided by Google Cloud
- ✓ Create generative AI projects using Gemini multimodal, efficient prompts and model tuning
- ✓ Explore different options for developing an AI project on Google Cloud
- ✓ Create an end-to-end Machine Learning model with Vertex AI

## Intended audience

Professional AI developers, data scientists and Machine Learning Engineers wishing to create predictive and generative AI projects on Google Cloud.

## Prerequisites

Basic knowledge of Machine Learning concepts. Previous experience with programming languages such as SQL and Python.

## Certification

We recommend you take this course if you want to prepare for certification as a "Google Cloud Professional Machine Learning Engineer".

[Comment passer votre examen ?](#)

### PARTICIPANTS

Professional AI developers, data scientists and Machine Learning Engineers wishing to create predictive and generative AI projects on Google Cloud.

### PREREQUISITES

Basic knowledge of Machine Learning concepts. Previous experience with programming languages such as SQL and Python.

### TRAINER QUALIFICATIONS

The experts who lead the training courses are specialists in the subjects covered. They are approved by the publisher and certified for the course. They have also been validated by our teaching teams in terms of both professional knowledge and teaching skills for each course they teach. They have at least three to ten years of experience in their field and hold or have held positions of responsibility in companies.

### ASSESSMENT TERMS

Assessment of targeted skills prior to training.

Assessment by the participant, at the end of the training course, of the skills acquired during the training course.

Validation by the trainer of the participant's learning outcomes, specifying the tools used: multiple-choice questions, role-playing exercises, etc.

At the end of each training course, ITTCERT provides participants with a course evaluation questionnaire, which is then analysed by our teaching teams. Participants also complete an official evaluation of the publisher.

An attendance sheet for each half-day of attendance is provided at the end of the training course, along with a certificate of completion if the participant has attended the entire session.

## Practical details

### Teaching methods

Training in French. Official course material in digital format and in English. Good understanding of written English.

## Course schedule

### 1 Foundations of AI

- Discover the challenges and opportunities of AI.
- Recognize the AI/ML framework on Google Cloud.
- Identify the main components of the Google Cloud infrastructure.
- Define data and ML products on Google Cloud.
- Discover ML model categories.
- Introduction to BigQuery ML.

#### Hands-on work

Lab: Predicting visitor purchases with BigQuery ML.

### 2 AI development options

- Define different options for creating an ML model on Google Cloud.
- Recognize the main functions and their use cases.
- Use the Natural Language API to analyze text.

#### Hands-on work

Lab: Entity and sentiment analysis with the Natural Language API.

### 3 AI development workflow

- Define the ML model creation workflow.
- Describe MLOps and workflow automation on Google Cloud.
- Develop an end-to-end ML model using AutoML on Vertex AI.

#### Hands-on work

Lab: Predicting credit risk with Vertex AI and AutoML.

### 4 Generative AI

- Defining generative AI and basic models.
- Using Gemini multimodal with Vertex AI Studio.
- Design effective prompts and tune models using different methods.
- Recognize AI solutions and integrated Gen AI features.

#### Hands-on work

Lab: Getting started with Vertex AI Studio.

## Dates and locations

### REMOTE CLASS

2026 : 19 Mar., 11 June, 24 Sep., 3 Dec.

### PARIS LA DÉFENSE

2026 : 19 Mar., 11 June, 24 Sep., 3 Dec.

### TEACHING AIDS AND TECHNICAL RESOURCES

The teaching resources used are the publisher's official materials and practical exercises.

### TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training course.

### ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you have specific accessibility requirements? Contact Ms FOSSE, disability advisor, at the following address: [psh-accueil@orsys.fr](mailto:psh-accueil@orsys.fr) so that we can assess your request and its feasibility.